ABSTRACT OF THE DISCLOSURE

Methods and apparatus are disclosed for operation of a multiple fuel engine, which runs on a combination of two or more fuels. An electronic control unit (ECU) may be connected to the existing components of an engine system in order to control operation of the multiple fuel engine. The engine system may be mechanically governed or electronically controlled. The ECU inputs operating characteristics of the engine system, determines governing characteristics for multiple fuel operation based on the operating characteristics, and controls the amounts of fuel delivered to the engine based on the governing characteristics. In a preferred embodiment, a dual fuel engine operates using diesel as a first fuel and natural gas as a second fuel. The operating characteristics may include engine speed, throttle position, engine exhaust temperature, gas pressure of the second fuel, gas temperature of the second fuel, boost pressure of an intake manifold, or engine coolant temperature.